

How far these phenomena are normal, and how much of what is above recorded may prove to be pathological, cannot be at present decided; but, in any event, it has been shown that the protoplasm of polar bodies has powers hitherto unsuspected. These need not imply close relationship between polar bodies and Protozoa, but may serve to show that protoplasm expresses itself in radically the same characteristic "protoplasmic" way in Metazoa and Protozoa. These new facts may be added to those recently presented in a comparative study of protoplasm\*, and help to bring us toward the new standpoints there reached.

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XVI.—*Heterocera from the Transvaal.*

By W. L. DISTANT.

I HAVE recently acquired a small collection of moths made in the neighbourhood of Johannesburg, which contains the following apparently undescribed species:—

Family *Arctiidæ*.

*Spilosoma lemniscata*, sp. n.

Head above golden yellow, eyes and antennæ black; pronotum black, the lateral margins and a round spot at base golden yellow; a black spot at humeral angles; abdomen above ochraceous, with the base, central transverse abdominal fasciæ, and lateral spots black; body beneath and legs dark fuscous, anterior femora streaked with ochraceous.

Anterior wings golden yellow, streaked with black—these streaks consist of a submarginal inner fascia, a fascia beneath cell from base to its extremity, where it emits four branches to outer margin (the uppermost disconnected), a streak from within cell to near margin, and a shorter subapical streak or spot; posterior wings dark purplish brown, with the margins golden yellow. Anterior wings beneath as above, but duller in hue; posterior wings beneath with a large basal subcostal yellow patch.

Exp. wings 31 millim.

Hab. Transvaal, Johannesburg.

Allied to *Spilosoma dissimilis*, Dist.

\* G. F. Andrews, 'The Living Substance' (Ginn & Co., 1897).

## Family Lymantriidæ.

*Lacipa quinquepunctata*, sp. n.

Head and pronotum silvery white, with ochraceous markings, eyes black, antennæ ochraceous; abdomen above and body beneath and legs very pale ochraceous.

Anterior wings silvery white, with a basal spot and two narrow transverse fasciæ ochraceous—both these fasciæ cross the wing, the first crossing centre of cell, where it is strongly and sinuately bent outwardly, the second oblique and very slightly sinuate beyond cell; extreme basal costal margin black, a small black spot beneath cell and before the first fascia, five black spots between the fasciæ—three at about end of cell and two beneath it bordering outer fascia; an outer submarginal row of small black spots; posterior wings very pale stramineous. Anterior wings beneath (excluding outer and inner margin) pale fuscous; posterior wings with a somewhat obscure discal fuscous spot.

Exp. wings 28 millim.

*Hab.* Transvaal, Johannesburg.

From *L. quadripunctata*, Dewitz, this species is distinguished by the narrower and more oblique and sinuated ochraceous fasciæ and the five discal black spots to the anterior wings; from *L. sexpunctata*, Dist., it differs not only by the number of spots, but also by the colour of the wings beneath.

*Lacipa pulvereæ*, sp. n.

Head and pronotum creamy white, with ochraceous markings, eyes black, antennæ ochraceous; abdomen above, body beneath, and legs ochraceous.

Anterior wings creamy white, crossed by three ochraceous fasciæ—the first subbasal and broken, second crossing cell, third beyond cell, oblique and slightly curved outwardly; some scattered black specks on basal costal margin, a black spot between first and second fasciæ, between second and third fasciæ a cluster of black speckles at end of cell, and two similar clusters beneath cell; an outer submarginal row of small black spots; posterior wings very thickly covered with fuscous speckles. Anterior wings beneath very thickly covered with fuscous speckles; posterior wings beneath very pale ochraceous, with a few marginal dark spots at apex.

Exp. wings 22 millim.

*Hab.* Transvaal, Johannesburg.

## Family Limacodidæ.

*Parasa Johannes*, sp. n.

♂. Pronotum pale green; abdomen above ochraceous; head, body beneath, and legs pale castaneous brown; antennæ black.

Anterior wings pale green; a broad outer margin and a broad discal fascia pale castaneous brown; the discal fascia extends from base to a little beyond cell, which it completely occupies, scarcely extending above it, but considerably beneath it, especially at base, its lower margin irregular and excavated, its apex furcate; posterior wings above and beneath pale golden yellow. Anterior wings beneath very pale castaneous brown, the green only more or less faintly visible beneath cell, the brown darkest where the discal and marginal fasciæ exist above.

♀. With the discal fascia to the anterior wings less intense in hue and with the posterior wings rather darker at apex and along outer margin.

Exp. wings, ♂ 35-40, ♀ 42-46 millim.

*Hab.* Transvaal, Johannesburg.

The length and shape of the discal fascia to the anterior wings is a special point in the identification of this species.

There is a specimen in the British Museum from Natal.

## Family Lasiocampidæ.

*Dendrolimus metallicus*, sp. n.

♂. Body, antennæ, and legs brownish ochraceous, the abdomen somewhat paler in hue.

Anterior wings greyish brown, thickly speckled with pale castaneous, crossed by two oblique, narrow, dark fasciæ, the first crossing cell, the second a little distance beyond it, both directed inwardly; between the second fascia and outer margin a similar obscure, broken, and much waved fascia; all these fasciæ greyish on their inner margins; near extremity of cell a castaneous streak, with a small white spot at its apex; marginal fringe darkest at base; posterior wings pale ochraceous. Anterior wings beneath unicolorous, without fasciæ as above; posterior wings beneath darker than above; both wings with faint signs of a discal oblique paler band.

♀. Anterior wings above with the inner grey margin to fasciæ much more distinct; the discal oblique band beneath also much more developed.

Exp. wings, ♂ 36, ♀ 38 millim.

*Hab.* Transvaal, Johannesburg.